

features of the claims, i.e., the amount of carbides in grain boundaries of the prior austenite is not more than 0.5 volume percent (the “claimed characteristics”) are present in the prior art of Miyata or Hara.

The Declaration also directly responds to the Examiner’s contention that Applicants have provided no evidence that the tempering temperature or lack of tempering is critical in producing the claimed characteristics. With this submission of evidence, the Examiner cannot not take the position that either Hara or Miyata are so similar to the processing used in the invention that it can be presumed that the claimed characteristics are present in their respective materials.

Applicants also take issue with the interpretation that tempering is optional in Miyata because of the presence of the word “can be”. The contention that one of skill in the art would remove the tempering of Miyata makes no sense when considering the overall teachings of Miyata. In order to make a modification of the prior art, the Examiner must have a reason to do so. The mere fact that tempering can be removed does not mean that one of skill in the art would be find this modification to make sense in the context of Miyata. The aim of Miyata is to obtain a martensitic steel that has specific properties, e.g., good corrosion resistance and weldability. Miyata achieves this aim through precise control over composition and processing. In particular, the processing in each instance requires tempering at 550 °C or higher. There is not one iota of suggestion in Miyata that the aim of good corrosion resistance and weldability can be attained by a steel that is not tempered at 550 °C. In col. 5, Miyata teaches that tempering below 550 °C means inadequate toughness is obtained. If toughness is compromised when the steel is inadequately tempered, clearly one of skill in the art

would not remove the tempering when toughness is the aim. Based on the collective teachings of Miyata, there is no legitimate factual basis to support the speculation that the tempering is optional in Miyata.

The same argument applies for Hara. As with Miyata, there is no suggestion in Hara that the aim of good corrosion resistance and weldability can be attained by a steel that is not tempered. Col. 6, lines 8-23, of Hara clearly teaches that tempering is not only essential, but must not be lower than 550 °C. With this, there is no legitimate factual basis to support the speculation that the tempering is optional in Hara.

Finally, Applicants continue disagree with the Examiner's reasoning that the formula can be dismissed as an optimization of the prior art composition. First, the formula can only be an optimization if the collective control of Cu and Mo is recognized, which it is not in the prior art. Second, the control of the formula produced unexpected results as evidenced by the comparison in the specification, which has been discussed in prior responses. Therefore, even if the Examiner were to insist that the arriving at the formula was within the skill of the art, the demonstration concerning unexpected improvements associated with the formula means that the claim is more than an optimization of the prior art composition. Put another way, the improvements associated with the control of the composition is a rebuttal of the allegation of obviousness.

Based on the submission of the Declaration, Applicants submit that a *prima facie* case of obviousness against the claims has not been established based on Miyata. The simple reason supporting this contention is that the claimed characteristics cannot be assumed to be present since the processing of Miyata

and the invention are not the same or even similar. A similar failing exists for the rejection based on Hara and this rejection must also be withdrawn.

In light of this response, the Examiner is respectfully requested to examine this application in light of this amendment, and pass all pending claims onto issuance.

If the Examiner believes that an interview with Applicants' attorney would be helpful in expediting prosecution of this application, the Examiner is respectfully requested to telephone the undersigned at 202-835-1753.

Again, reconsideration and allowance of this application is respectfully requested.

The above constitutes a complete response to all issues raised in the Office Action dated September 26, 2008.

A petition for a three month extension of time is made. A check in the amount of \$1,110.00 is attached. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,  
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